Strengthening Healthy Communities, Advancing Environmental Protection

Plan to help communities stay informed and involved

CIPs specify EPA-planned community involvement activities to address community needs, concerns, and expectations that are identified through community interviews and other means This Community Involvment Plan (CIP) is the updated strategy for involving community members in the cleanup of the Portland Harbor Superfund site. The plan is a collaborative effort between the EPA Region 10 and the Oregon Department of Environmental Quality (ODEQ). Community involvement has played a vital role at the site, and will continue to do so in the future. Activities in this plan will be used to make sure the we remain in regular contact with everyone interested in the site. The plan is the result of feedback from community meetings, interviews and presentations held in 2012.

EPA and Community Involvement

A community involvement plan is a strategy to help promote meaningful community involvement throughout the cleanup of the Portland Harbor Superfund site.

The plan for the Portland Harbor site is designed to be flexible. It reflects our current knowledge about area communities and their concerns.The plan is a working document, and is updated as community concerns become known and more information about the site becomes available.

Together, we have moved through the stages of Superfund cleanup. As of 2013, the EPA is currently reviewing cleanup options for the site. EPA Region 10 plans to release a draft cleanup plan for public comment in 2014.

Our goal is to make sure we consistently provide opportunities for people to share their ideas, concerns and priorities. Ongoing community discussions will help make sure all issues and concerns are part of the Superfund process. We look forward to continuing to work with you to strengthen healthy communities and advance environmental protection.

What's Inside

The Site: At a Glance

Where Is the Portland Harbor Site?

The study area is a contaminated 11 river mile longsection of the Willamette River between Broadway Bridge in downtown Portland and the Columbia Slough.

What Happened?

More than a century of industrial uses left Willamette River mud (sediments) and shoreline areas contaminated with different hazardous substances. They include polychlorinated biphenyls (PCBs), heavy metals, polynuclear aromatic hydrocarbons (PAHs), dioxin/furans and pesticides.

Why Are We Cleaning It Up?

EPA evaluated studies to determine if people and wildlife may be exposed to contamination site, and if so, whether the possibility of harmful effects is great enough that a cleanup is needed. EPA has determined that risks posed by the Portland Harbor site are high enough to take action.

Eating Portland Harbor resident fish such as bass, catfish and carp, is a health risk, especially for subsistence fishers and infants that are breast fed by mothers who consume resident fish. PCBs are the primary contaminant associated with most of the risk from eating Portland Harbor fish.

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What Is Going on Now?

The EPA is reviewing options to clean up Portland Harbor that are presented in a document called the feasibility study. After the study has been finalized, the EPA will develop a proposed cleanup plan which is anticipated in 2014. This Proposed Plan will review cleanup options and propose a preferred course of action for cleaning up Portland Harbor. After carefully considering public input on the Proposed Plan, the EPA will issue a Record of Decision (ROD) selecting a remedy for the site. The ROD likely will not be in place before 2015.

Cleanup of the river will be coordinated with cleanup and pollution control efforts on land based properties that are sources of contamination to the river which ODEQ is overseeing. Until then, EPA and ODEQ will continue to meet with the public to provide updates, answer questions, and listen to community concerns.

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What Are the Project's Goals?

- Clean up contaminated sediment and decrease pollution sources to reduce the risk for people eating resident fish from the lower Willamette River and for wildlife and fish in the area.
- Provide better habitat for wildlife and fish and coordinate cleanup actions with habitat restoration projects in the lower Willamette River.
- Allow recreational and other river uses that also continue to support navigation, industry, commerce and jobs in Portland Harbor.

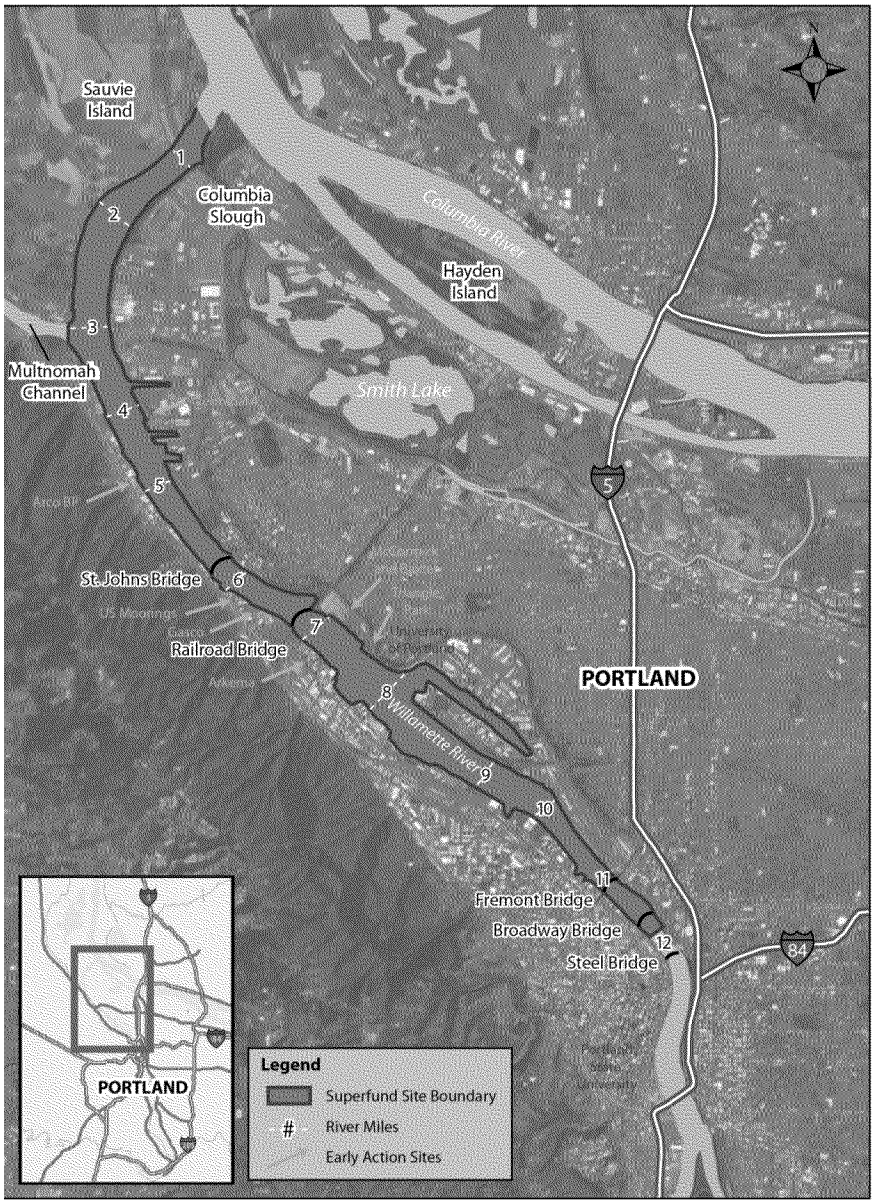
EPA and ODEQ Contacts

Contact us if you have questions or need more information about this plan or the Portland Harbor site:

- Alanna Conley, EPA Community Involvement Contact | (503) 326-6831| conley.alanna@epa.gov
- Chip Humphrey, EPA Project Manager| (503) 326-2678 | humphrey.chip@epa.gov
- Marcia Danab, ODEQ Community Involvement Contact | (503) 229-6488| danab.marcia@deq.state.or.us
- Jim Anderson, ODEQ Project Manager| (503) 229-6825 | anderson.jim@deq.state.or.us

Learn more , visit EPA'sPortland Harbor web page: www.epa.gov/region10/portlandharbor, or ODEQ's webpage for information on source control: www.deq.state.or.us/lq/cu/nwr/portlandharbor/

Early action cleanup of the Terminal 4 site in Portland Harbor, before (*left*) and after (*right*)



Aerial view of the Portland Harbor site

A Closer Look

Portland Harbor Superfund site study area is located on the lower Willamette River, between the Broadway Bridge in downtown Portland and the Columbia Slough, approximately where the Willamette and Columbia Rivers meet.. The working Portland waterfront is heavily industrialized and zoned primarily for commercial and industrial uses. Although there are some neighborhoods nearby, the area is likely to remain a working harbor.

In fact, Portland Harbor is one of the busiest seaports on the Pacific Coast. Since the mid-1800s, the shoreline has been regularly altered to accommodate urban development and a growing shipping industry.

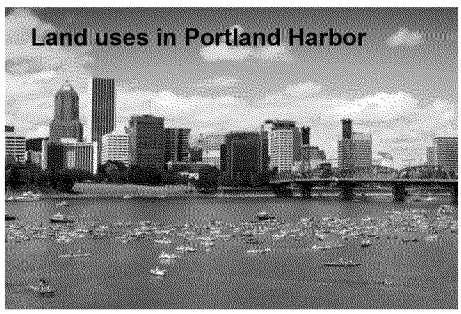
In addition to industrial activities, other important uses benefit the region. Tribal fishing for both subsistence and ceremonial purposes historically, and continues to be a key activity along the river. Other people also use the river for subsistence fishing. **Subsistence fishing** refers to fishing, other than sport fishing, where fishing provides a source of food, up to a substantial source of food for the fisher and/or family of the person doing the fishing. People fish within Portland Harbor from boats and from locations along the banks. Many fish species

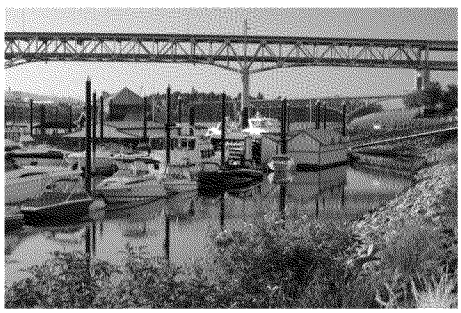
such as salmon and steelhead migrate through Portland Harbor and the Willamette River. Unlike migratory fish, **resident fish**, such as bass, catfish and carp, may spend their entire life cycle in Portland Harbor..

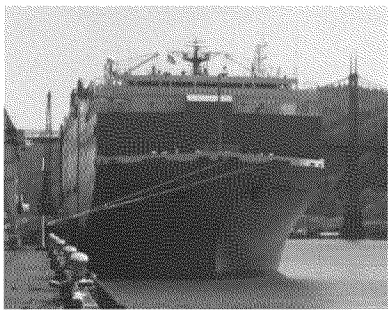
. Fish-eating birds, migratory waterfowl and raptors seasonally visit the lower Willamette River. Spring Chinook support sport and recreational fishing. Swimming, boating, and community recreational events are other uses that bring people in contact with Portland Harbor. Transient communities, which spend a short time in an area, have also been observed living along some riverbank areas.

In December 2000, the EPA added Portland Harbor to the Superfund program's National Priorities List of contaminated sites based on the results of a 1997 sediment sampling study. The list identifies the nation's most contaminated sites. Hazardous substances currently found at Portland Harbor are harmful to humans, fish and wildlife., The EPA has focused on evaluating the risks posed at the site and determined that there is a risk to public health from eating resident fish.
Since several years prior to the listing, ODEQ has been cleaning up sources of contamination at industrial sites along the banks of the river. Appendix C and Appendix D provide more information about these early action cleanup areas.

For additional background information, please see Appendix H for fact sheets about Portland Harbor.







Community Background

Diverse neighborhoods, organizations, schools, businesses, religious institutions, the University of Portland, and government offices are located within a five-mile radius of the Portland Harbor site. Twenty-four percent of people living within 5 miles of the site are minorities; fifteen percent of homes are non-English speaking households. Area neighborhoods include Spanish-speaking, Vietnamese and Russian/Slavic communities.

Community Data			
		5-Mile Radius	Portland, Oregon (Multnomah County)
Race % Minority		24%	30%
Race % White		80%	81%
Speak English Only		85%	81%
Non-English Spoken at Home		15%	19%
Age of Population (less than 18 years old)		24%	21%
Education (High School Diploma)		16%	21%
Per Capita Income		$34,383	20%
Household Income Less Than $15,000		14%	$28,883
Title 1 Public Schools		12	14%
Source: *U.S. Census Bureau, American Community Survey (ACS) 2006-2010*			

Portland Harbor Community Advisory Group (CAG)

A group of interested citizens and organizations formed a Community Advisory Group, or CAG, for the Portland Harbor site. The Portland Harbor CAG provides a public forum for community members to learn about the site and share community needs and concerns. The CAG also assists EPA Region 10 and ODEQ in making decisions on how to clean up the site by offering a valuable opportunity to hear and consider community perspectives on site plans and activities.

Participate in future Portland Harbor CAG meetings

- Contact CAG Chair Jim Robison at 503-285-4805 or jim@jimrobison.org.

Attend a CAG meeting held on the second Wednesday of every month as 6:00 p.m.. at the Water Pollution Control Laboratory at 6543 North Burlington Avenue, under the St. Johns Bridge. All CAG meetings are open to the public Sign up to receive email invitations and meeting agendas at: http://bit.ly/ptlndhrb

Other Community Partners

We recognize that there are community members and organizations not represented on the CAG. Therefore, it is important that we reach out regularly to others interested in the Portland Harbor site to be sure we hear their ideas and concerns. Some of the community groups that we have connected with include Portland Harbor Coalition, Latino Network, the Slavic Immigrant Association, Ecumenical Ministries Oregon, Coalition of Black Men, and North Portland Neighborhood Associations. , We will also use public information sessions, fact sheets, websites, one-on-one discussions, participation in community events as a way to share information with the broader community. If you are aware of specific community needs near the site, please let EPA Region 10 and ODEQ know. We will translate and publish materials in local media, host informal meetings, and meet one-on-one to make sure people's concerns are heard and that people are up-to-date on the site's status. See the other approaches described on page X.

Williamette Riverkeeper

The Willamette Riverkeeper has been a community resource, sharing information and reaching out to the public about Portland Harbor cleanup activities. The EPA advertised the availability of a technical assistance grant in December 2000 and awarded it to the Willamette Riverkeeper in August 2001.The purpose of the grant is to hire a technical advisor to support the CAG. The advisor helps community members understand scientific and technical information related to the investigation and cleanup of Portland Harbor.

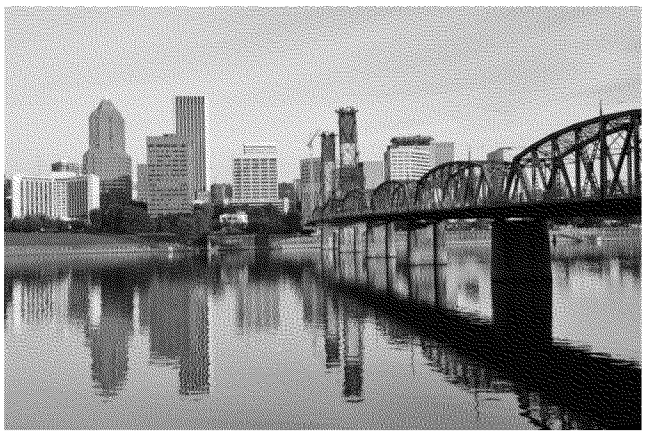
To Learn More about the Willamette Riverkeeper

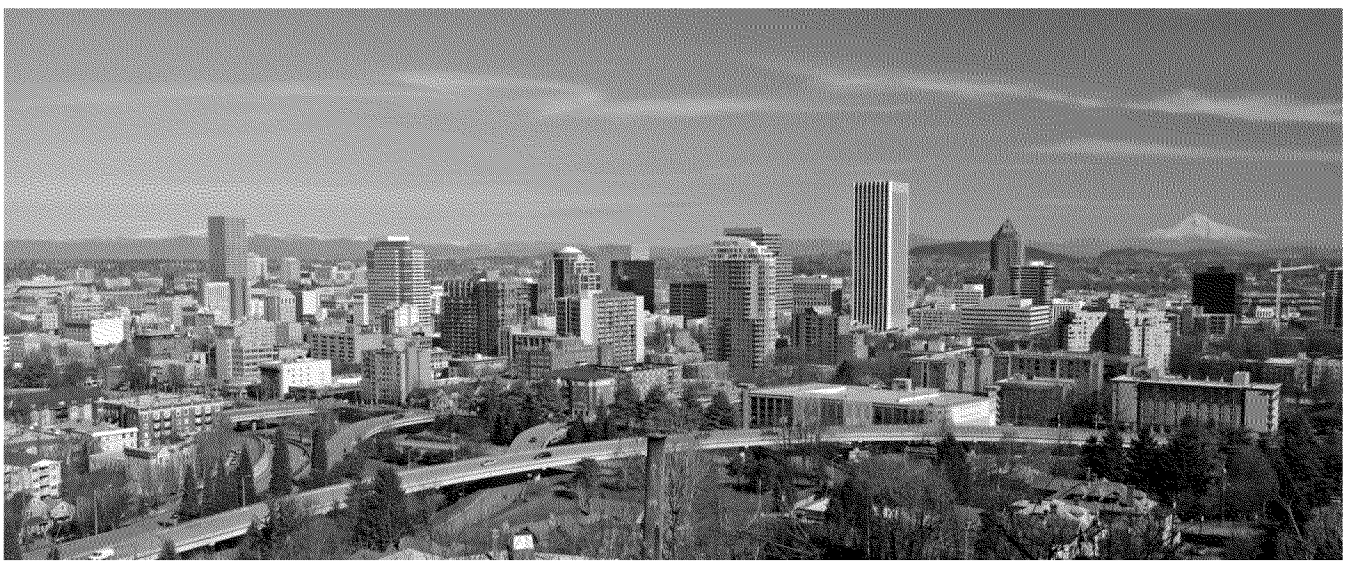
- Contact Executive Director Travis Williams at 503-223-6418 or travis@williametteriverkeeper.org.
- Visit the organization's website at www.willamette-riverkeeper.org.

Portland Harbor Natural Resource Trustee Council

Members of state and federal agencies and tribal government representatives comprise the Trustee Council. They are i involved at the siteare moving forward with studies to determine the injury to natural resources in Portland Harbor and developing a restoration plan. Please see page X for more information. The U.S. Fish and Wildlife Service also provides information on the Council at www.fws.gov/oregonfwo/Contaminants/PortlandHarbor.

Insert NOAA photos.





What We Have Heard So Far

To make sure EPA Region 10 and ODEQ remain up to date on community concerns and priorities regarding the Portland Harbor site, we participated in and hosted a series of activities in 2012. These venues included Portland Harbor CAG meetings and the CAG's 2012 Field Day, neighborhood association meetings, public involvement sessions, and focus groups. We also did a lot of one-on-one outreach, visiting local neighborhoods and meeting with area organizations.

Here is a brief summary of the community feedback shared with EPA Region 10 and ODEQ during these activities.

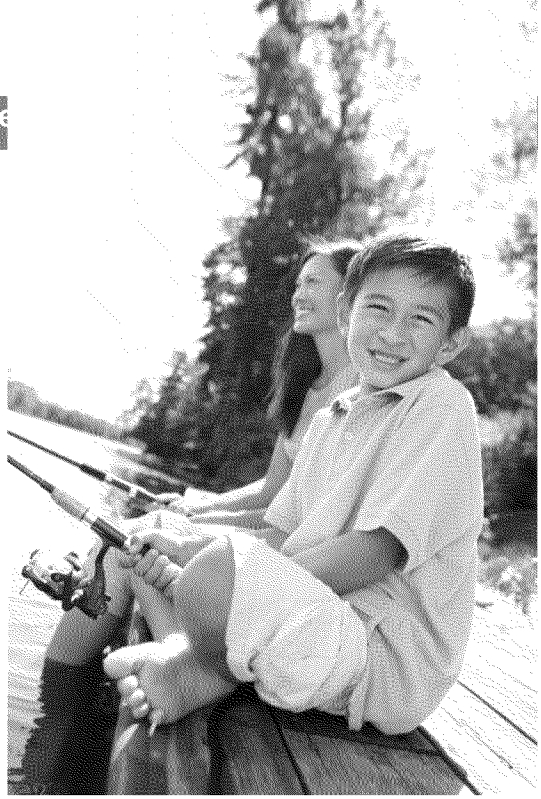
Community Requests

- Ensure that outreach efforts include underrepresented communities.
- Provide regular site status updates to area communities on upcoming site activities and make sure they are regularly involved in site discussions and meetings.
- Have EPA site staff attend community meetings and share updates.
- Host non-technical meetings where people can share their thoughts, ask questions and provide input in an informal setting.
- Help identify community demographicsCoordinate the cleanup with efforts to prevent the recontamination of the harbor.
- Maintain the continued economic viability of the harbor and the Portland metropolitan area.
- Enable educational opportunities for students to learn about the site and its cleanup.
- Respond to community concerns about the placement of a confined disposal facility (CDF) and explore alternative treatment technologies.
- Make sure the site's responsible parties pay their fair share of the cleanup.
- Provide periodic briefings to the media and local, state and federal elected officials.
- Give semi-annual presentations on the site's status, milestones and next steps to the Swain Island Business Association.

Community Suggestions

General

- To reach underrepresented communities, translate materials into Spanish, Vietnamese and Russian and share the information using ads in newspapers, public service announcements on the radio and television, and articles in community newsletters.
- Direct community outreach is also effective. Attending community celebrations and ethnic festivals is a good way to reach different communities and neighborhood associations in the area.



- Continue working with local non-profit community organizations to help share site information.

For Outreach to Spanish-Speaking Communities

- There is a need for more public awareness regarding the health risk posed by eating resident fish from Portland Harbor. People are catching and eating the fish.
- Information sharing needs to reach families and children. Possible options include passing out information in Spanish in schools, churches and community centers, and placing television commercials on the local Spanish channel and ads in the community outreach section of the *El Latino de Hoy* newspaper. Other options include hosting afterschool programs, providing public service announcements on Radia Latina, providing information during free-lunch-in-the-park programs, the Explorando el Colombia Slough Festival, Portland Sunday Parkways and the Laura Media Health Fair, and working with the Northwest Family Services organization to coordinate meetings and outreach.

For Outreach to Vietnamese Communities

- There is a need for more public awareness regarding the health risk posed by eating resident fish from Portland Harbor. People are catching and eating the fish.
- People are very concerned about their health and being healthy. Outreach should focus on Vietnamese neighborhoods in southeast and southwest Portland, along 82nd Avenue, Powell Boulevard, Division Street, Foster Road and Glisan Street.
- Public notices and warning signs work well. Ads highlighting the fish advisory in the *Phuong Dong Times* newspaper would also work well.
- There is a need for translation services.

For Outreach to Russian and Slavic Communities

- There is a need for more public awareness regarding the health risk posed by eating resident fish from Portland Harbor. Eastern European groups fish the harbor most heavily on weekends.
- The EPA should work with Orthodox Christian churches in the area and Russian Oregon Social Services on outreach efforts. Attending and sharing information at community festivals is also a good option.

Community Questions

- Where and how should contaminated sediments be disposed of?
- Will businesses be able to continue to operate during and after the cleanup?
- How will people know that the fish in the harbor are safe to eat?
- Will the involvement of different government agencies and tribal governments slow down the investigation and cleanup?
- How will agencies post and advertise unsafe conditions?
- How do contaminated sediments affect water quality?
- How much contamination is there; how far does it extend?

Community Involvement Objectives

Based on the community feedback EPA Region 10 and ODEQ received in 2012, our goals for the site's updated Community Involvement Plan are to:

- Make sure the cleanup process reflects community interests and priorities.
- Provide regular and timely information about upcoming cleanup activities and future plans.
- Continue to work with all affected communities and other interested parties, maintaining regular and open dialogue to respond to questions and concerns as they arise.
- Identify and reach out to other communities not represented on CAG to make sure their voices are heard.
- Evaluate the effectiveness of this community involvement plan and make changes as needed.

Community Involvement Activities

EPA Region 10 and ODEQ have developed a toolkit of public outreach activities that we planto use to keep you informed. Audiences for these efforts will include people who may be :

- Affected by environmental impacts or cleanup work in Portland Harbor.
- Involved in site investigation activities or cleanup activities.
- Interested in cleanup work in the harbor or issues related to the Willamette River.
- Responsible for the general welfare of area communities, businesses, organizations and governments.

Activities Toolkit

Public Review of Documents:	From start to finish, the cleanup of the Portland Harbor site will be transparent and accessible to the public. EPA Region 10 will post draft reports, work plans and results on the EPA's Portland Harbor website. EPA Region 10 will also make copies available upon request. Appendix F: Glossary and Appendix G: Table of Acronyms are resources for community use while reading these materials.
Comment Periods:	Comments received by the EPA during public comment periods will be shared with project managers and the project team, placed in the administrative record, and receive a written response from EPA Region 10. Comments received outside of formal public comment periods will also be shared with project managers and the project team and placed in the administrative record. They will not receive a written response.
Portland Harbor CAG Support:	EPA site staff will continue to work closely with the Portland Harbor CAG, attending meetings, providing information and serving as resources to answer community questions.
Technical Assistance:	EPA, as our budget permits, plans to continue funding the technical assistance grant to to provide independent technical review and interpretation of project information for the community.
Briefings:	EPA and ODEQ project managers and staff will routinely brief local, state and federal legislators about progress on the Portland Harbor cleanup. These briefings will provide another way for project information to reach local constituents. In return, legislators will be able to share their constituents' concerns with the EPA and ODEQ.

Informal Communication:	Agency project managers and community involvement coordinators are always willing to meet with community members, neighborhood associations and other site stakeholders to discuss the site's status and keep up-to-date on community issues and concerns.
Feedback:	Alanna Conley and Marcia Danab are the project's community involvement coordinators. They are available to talk with anyone who has concerns or questions about the Portland Harbor cleanup. They will share the information they gather with the project team.
Fact Sheets:	The EPA and ODEQ will issue periodic fact sheets about cleanup activities, significant milestones, technical information and project findings. The fact sheets will be e mailed to the Portland Harbor mailing list (see below) and posted on the EPA and ODEQ Portland Harbor Web pages. Hard copies of fact sheets will be distributed during CAG meetings and provided to community groups and individuals upon request.
Articles:	The EPA and ODEQ may periodically submit articles to trade publications and local newspapersPublic notices for submission of public comments on the Proposed Plan will be posted in one or more newspapers.
Meetings:	Agency project managers and community involvement coordinators are available to attend regularly scheduled meetings of community groups and neighborhood associations upon request.
Availability Sessions:	The project team will host open houses and workshops to help make information widely available at significant milestones during the site's cleanup.
Project Mailing List:	Site agencies will maintain and regularly update their respective Portland Harbor email lists to make sure stakeholders and neighbors receive information updates. To join the email list, please send a request by email, phone or mail to the EPA or ODEQ contacts listed on page 2. Contact us if you should need printed copies.
Information Repositories:	Reports will be made available for public review in the Multnomah County Central Library (Government Document Section), 801 SW 10th Avenue, Portland OR 97205 | (503) 988-5123 and in the EPA Office, 805 SW Broadway St., call for appointment
News Releases:	Significant project news and milestones may be shared by our Public Affairs Offices with Portland mass media outlets.
Websites:	The EPA and ODEQ maintain project websites where people can access site information. To access the EPA Portland Harbor website, visit www.epa.gov/region10/portlandharbor. To access ODEQ's website, visit www.deq.state.or.gov/nwh/ph.
Partnerships:	Project team staff will support the efforts of community partners to share project information where appropriate.
Community Interviews:	EPA Region 10 and ODEQ attended two Portland Harbor CAG meetings and four neighborhood association meetings, hosted four focus groups, and met with several

	area organizations in 2012, gathering community feedback prior to updating the site's 2002 Community Involvement Plan. Interviews will continue to inform future revisions of the plan.
Stakeholder Dialogue:	To make sure site agencies reach all parties interested in the site's cleanup, including underrepresented groups who may not attend CAG and other site meetings, agency staff will continue to host and participate in informal small group discussions to help identify community needs, concerns and priorities.
Outreach to Targeted Populations:	Portland's network of neighborhood associations includes several adjacent to the Portland Harbor site. The associations remain willing to relay information between site agencies and the community. In addition to measures outlined elsewhere in this document, special efforts may be taken to reach the following parts of the affected community: • • *Recreational users:* We will develop and post signs near boat launches and in community parks and have interagency information booths at local events. • *Non-English speaking groups:* If you need site information translated into other languages, please let EPA Region 10 know. We are able to provide materials in Mandarin Chinese, Russian, Spanish and Vietnamese and other languages. • *Tribal populations:* We will work with each tribal government on the Portland Harbor team to identify specific tribal information and education needs.
Community Involvement Plan Review:	EPA Region 10 will ask for feedback on our community involvement efforts through public information sessions and comments received by email and phone. The EPA will update the Community Involvement Plan over time as needed.

MOVE OUTREACH ACTIVTIY CHART HERE

Project Roles and Responsibilities

Site Agencies

The EPA and ODEQ signed a Memorandum of Understanding in February 2001 to work collaboratively on the cleanup of the Portland Harbor site. The EPA is responsible for cleanup of contaminated sediments in the river. ODEQ is the lead agency for cleaning up upland sites along the banks of the river. ODEQ is also responsible for coordinating the Portland Harbor work with other state and local efforts such as the Governor's Oregon Plan and the City of Portland Combined Sewer Overflow (CSO) project.

Regulatory Overview

The EPA and ODEQ's work in Portland Harbor is governed by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as amended by the Superfund Amendments and Reauthorization Act (SARA) of 1986 as well as the State of Oregon's Environmental Cleanup Law (Oregon Revised Statutes 465-200 et. seq.), the Clean Water Act, the Endangered Species Act and other applicable laws and regulations.

Portland Harbor Natural Resource Trustee Council

EPA Region 10 and ODEQ are also part of a larger intergovernmental project team that includes natural resource trustee organizations designated by law to act on behalf of the public or tribes to protect natural resources such as salmon, migratory birds and their habitat. To coordinate their damage assessment and restoration planning actions, the Trustees for Portland Harbor natural resources formed the Portland Harbor Natural Resource Trustee Council in 2002.

The trustees involved in the Portland Harbor project include the U.S. Fish and Wildlife Service, the National Oceanic and Atmospheric Administration, the Oregon Department of Fish and Wildlife and six tribal governments. The tribal governments are the Confederated Tribes and Bands of the Yakama Nation, the Confederated Tribes of the Grand Ronde Community of Oregon, the Confederated Tribes of Siletz Indians, the Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes of the Warm Springs Reservation of Oregon, and the Nez Perce Tribe.

The tribal governments have expressed interest in the Portland Harbor work because of:

- Treaty rights that provide access to the river's resources.
- Historical use of the area for fishing and cultural purposes.
- Importance of fish and lamprey eel for sustenance and ceremonial purposes.
- Their roles as natural resource trustees charged with protection of fish and wildlife.

The relationship and responsibilities of the intergovernmental project management team are also established in the site's February 2001 Memorandum of Understanding. The Memorandum is available at the EPA and ODEQ websites or upon request from the agencies.

This Community Involvement Plan serves as a basis for providing information to affected tribal community members. EPA and ODEQ staff will continue to work with the tribal members of the intergovernmental project team to identify the specific needs of tribal members. Both the EPA and ODEQ have obligations to consult with tribal governments on a government–to-government basis, and the EPA has a trustee responsibility to the tribes as a federal agency. Community outreach activities are separate from trustee responsibilities and consultation between governments.

Potentially Responsible Parties

The EPA has identified about 150 parties that are potentially responsible for site cleanup costs. The Lower Willamette Group is a coalition of Portland Harbor businesses and public agencies who voluntarily stepped forward to participate in site investigations and cleanup. The Group signed an Administrative Order on Consent to conduct the site's remedial investigation, human health and ecological risk assessment, and feasibility study, under EPA oversight. Once a cleanup plan is in place, EPA Region 10 will request that the parties negotiate an agreement to fund and implement the site's cleanup..

Working Together for Cleanup

EPA Region 10
Cleanup of Willamette River sediments

Oregon DEQ
Cleanup of upland sites

Lower Willamette Group and Other Responsible Parties
Remedial investigation and feasibility study; site cleanup costs

Portland Harbor CAG
Community forum for education, information sharing, input into site decision-making

Portland Harbor Natural Resource Trustee Council
Natural resource damage assessment and restoration planning

What's Next in the Cleanup Process

The remedial investigation and feasibility study (RI/FS) for the Portland Harbor site are complete. This stage of the Superfund process identifies the locations, types and amounts of contamination in the harbor. The Lower Willamette Group submitted the site's RI Report to the EPA in October 2009. The site's draft FS Report was submitted to the EPA in March 2012. The report includes ecological and human health risk assessments looking at the risks posed to people, fish, wildlife and plants by contaminated sediment at the site. The EPA is currently reviewing the draft FS Report.

Once finalized, the EPA will use the FS Report to help prepare a plan to clean up Portland Harbor. The Proposed Plan will summarize cleanup alternatives and propose a preferred course of action. The EPA will ask for public comments on the Proposed Plan. Tribal consultations and a review by ODEQ will also take place.

After carefully considering public input on the Proposed Plan, the EPA will issue a Record of Decision (ROD) for Portland Harbor. The EPA will then negotiate with the site's potentially responsible parties to design and put the selected remedy in place.

Placeholder for ODEQ next steps content.

The community involvement action plan on the following page provides dates and timeframes for upcoming EPA site activities and milestones.

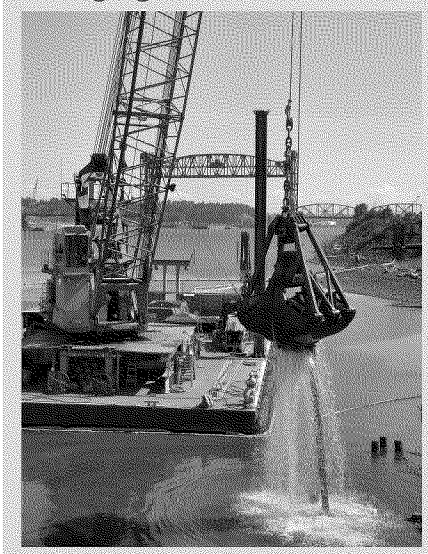
The Feasibility Study

The Feasibility Study outlines the different methods available for sediment cleanup and describes a wide range of ways to combine those methods into cleanup alternatives.

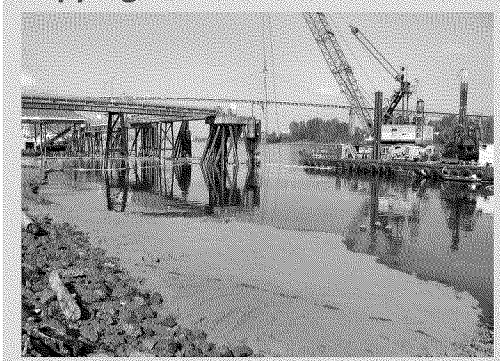
Methods to clean up contaminated sediment include:

- Digging it up (dredging).
- Covering it with clean soil (capping).
- Treating it in place (in-situ treatment).
- Allowing cleaner upriver sediments to cover it up (natural recovery).

Dredging



Capping



You can review the draft FS Report at the Multnomah County Central Library or online at www.epa.gov/region10/portlandharbor.

EPA Region 10 Community Involvement Action Plan for 2013 and Beyond	
Ongoing:	Participation in monthly CAG meetings, neighborhood association meetings and presentations to community groups upon request.
	Responding to information requests from residents.
	Attending community festivals and other outreach events.
	Meeting with community groups as requested.
	Updating and involving project partners – local, state and federal agencies and tribal governments.
	Briefing local, state and federal elected officials.
April 2013:	Press release and outreach focused on the status of river mile 11.
	Draft Community Involvement Plan provided for public review, posted on site Web page, emailed to site mailing lists and shared with community partners and tribal governments.
April 10, 2013:	Presentation to the Portland Harbor CAG on the site's draft feasibility study and ecological and human health risk assessments.
April - May 2013:	Human health and ecological risk assessment fact sheets available to the public.
May 2013:	Human health and ecological risk assessments finalized.
Summer 2013:	Site update presentation to the Swan Island Business Association.
Spring 2014:	Portland Harbor community training.
Summer – Fall 2014:	Portland Harbor job facilitation effort.
Summer – Fall 2014 (one month prior to issuance of Proposed Plan):	Proposed Plan fact sheets and frequently asked questions (FAQs) available to the public.
Summer – Fall 2014 (one month prior to issuance of Proposed Plan):	Public meetings and community presentations on the draft Proposed Plan.
Summer – Fall 2014:	Draft Proposed Plan provided for public review, posted on site Web page, emailed to site mailing lists and shared with community partners and tribal governments.
Summer – Fall 2014:	Notifications of draft Proposed Plan availability published in multiple languages in local media.
Summer – Fall 2014:	Public information session on draft Proposed Plan.

Summer – Fall 2014 (30-120 days):	Public comment period on the draft Proposed Plan.
2014 and Beyond:	Finalized Proposed Plan.
	Tribal consultation (prior to issuance of ROD)
	ROD fact sheets and frequently asked questions (FAQs) available to the public.
	Public meetings and community presentations on the draft ROD.
	ROD provided for public review, posted on site Web page, emailed to site mailing lists and shared with community partners and tribal governments.
	Notifications of draft ROD availability published in multiple languages in local media.
	Public information session on draft ROD.
	Finalized ROD.
	Remedial design and remedial action.

EPA community involvement activities for the Portland Harbor site in 2012 included site tours and information booths at community events.

Notetaking Page for Your Thoughts (issues, concerns and priorities to share with EPA Region 10 and ODEQ)

Appendix A: Superfund Community Involvement Activities

The activities proposed in this Community Involvement Plan for Portland Harbor include public involvement requirements established by law or regulation for all Superfund sites. The information in this appendix has been included as a helpful reference. The citation at the end of each paragraph uses the following abbreviations:

- NCP: National Contingency Plan
- CERCLA: Comprehensive Environmental Response, Compensation and Liability Act (Superfund)
- CFR: Code of Federal Regulations

The numbers and letters in parentheses indicate the chapter, section and paragraph where this information originates. People can request copies of these laws and regulations from any EPA office.

Upon Completion of the Feasibility Study and Proposed Plan

Site Activity: RI/FS and Proposed Plan Notification and Analysis
Minimum Requirements: The lead agency must publish a notice of the availability of the RI/FS and Proposed Plan, including a brief analysis of the Proposed Plan, in a major local newspaper of general circulation. The notice also must announce a comment period.
Reference: SARA 117(a) and (d); NCP 40 C.F.R. 300.430(f)(3)(i)(a)

Site Activity: Public Comment Period on RI/FS and Proposed Plan
Minimum Requirements: The lead agency must provide at least 30 days for the submission of written and oral comments on the Proposed Plan and supporting information located in the information repository, including the RI/FS. The agency will extend this comment period by a minimum of 30 additional days upon timely request.
Reference: SARA 113(k); NCP 40 C.F.R. 300.430(f)(3)(c)

Site Activity: Public Meeting
Minimum Requirements: The lead agency must provide an opportunity for a public meeting regarding the Proposed Plan and supporting information at or near the site during the comment period.
Reference: SARA 113 and 117(b); NCP 40 C.F.R. 300.430(f)(3)(i)(D)

Site Activity: Meeting Transcript
Minimum Requirements: The lead agency must have a court reporter prepare a publicly available meeting transcript.
Reference: SARA 117(a)(2); NCP 40 C.F.R. 300.430(f)(3)(i)(E)

Site Activity: Revised Proposed Plan and Public Comment
Minimum Requirements: Upon the lead agency's determination that the public could not have reasonably anticipated such changes, the agency must issue a revised Proposed Plan that includes a discussion of the significant changes and the reasons for such changes. The Agency must seek additional public comment on the revised Proposed Plan
Reference: NCP 40 C.F.R. 300.430(f)(3)(ii)(B)

After the Record of Decision (ROD) Is Signed

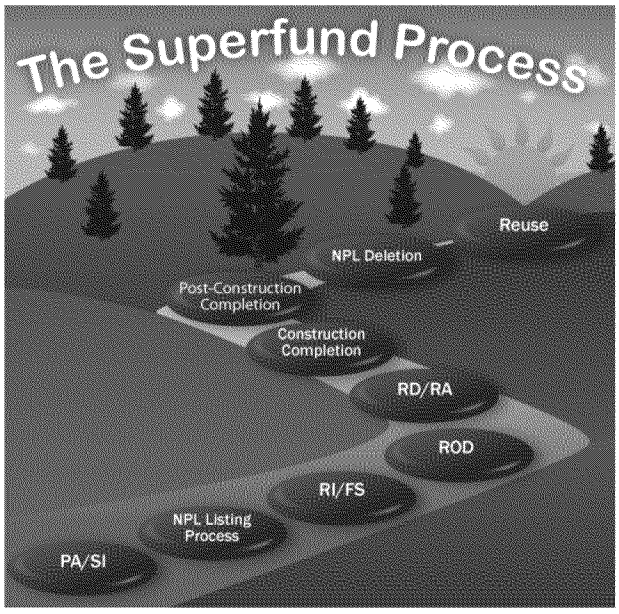
Site Activity: ROD Availability and Notification
Minimum Requirements: The lead agency must make the ROD available for public inspection and copying at or near the site prior to the commencement of any remedial action. In addition, the lead agency must publish a notice of the ROD's availability in a major local newspaper of general circulation. The notice must state the basis and purpose of the selected action.
Reference: NCP 40 C.F.R. 300.430(f)(6)

Site Activity: Revision of the Community Involvement Plan
Minimum Requirements: Prior to the remedial design, the lead agency should revise the CIP, if necessary, to reflect community concern, as discovered during interviews and other activities, that pertain to the remedial design and construction phase.
Reference: NCP 40 C.F.R. 300.435(c)(1)

Remedial Design

Site Activity: Fact Sheet and Public Briefing
Minimum Requirements: Upon completion of the final engineering design, the lead agency must issue a fact sheet and provide a public briefing, as appropriate, prior to beginning remedial action.
Reference: NCP 40 C.F.R. 300.435(c)(3)

Appendix B: The Superfund Process



Source:
www.epa.gov/superfund/community/process.htm

Event	Complete at Portland Harbor?	Description
Preliminary Assessment / Site Investigation (PA/SI)	√	Initial investigations of site conditions.
NPL Listing	√	Placement of site on the EPA's list of the most serious hazardous waste sites identified for long-term cleanup under Superfund.
Remedial Investigation / Feasibility Study (RI/FS)	√	Studies to determine the nature and extent of contamination.
Proposed plan	**2014**	
Record of Decision (ROD)		Decision document selecting site remedy.
Remedial Design / Remedial Action (RD/RA)		Preparation and implementation of plans and specifications for site remedies.
Construction Completion		Completion of physical cleanup construction (cleanup may remain ongoing).
Post-Construction Completion		Activities ensuring Superfund response actions provide for long-term protection of human health and the environment.
NPL Deletion		Removal of site from NPL once all response actions are complete and all cleanup goals achieved.
Reuse		Return of site properties to safe and productive use following cleanup.

Appendix C: Area Context and History

The city of Portland is located in Multnomah County, Oregon. About 15 percent of the state's population – 584,000 people – lives in Portland. The Portland metropolitan area has a population of about 2.3 million.

Historically, the area's economy focused on the harvest of fish, timber, minerals and agricultural products. The principal industries of the Portland metropolitan area are now manufacturing, tourism, transportation, and wholesale and retail trade.

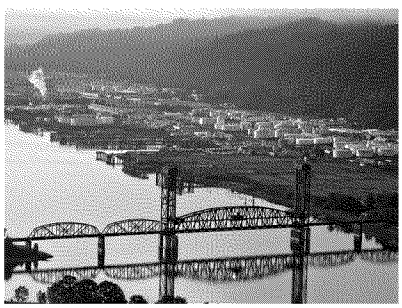
Portland Harbor is one of the busiest seaports on the Pacific Coast. Since the mid-1800s, when the first wharves began supporting international and intercoastal steamship service, the shoreline of the river near Portland has been altered for urban development and a growing shipping industry. The first dredging of the river took place in 1968. Since that time, the Willamette River has been dredged regularly for navigation and maintenance.

The Willamette River

The Willamette River runs through the middle of Portland, flowing north through the city to where it joins the Columbia River. The shoreline has steep banks, many covered with riprap or constructed bulkheads. Many piers and wharves extend out over the water. To accommodate shipping, the river has been extensively dredged. Channel depths currently range from 10 to 140 feet, with an average depth of 45 feet. As the river flows through Portland, it is deep and slow moving, and the water level rises and falls from tidal influence.

The Port of Portland is a hub for goods importing and exporting in the region. Past and present industrial operations in Portland Harbor include:

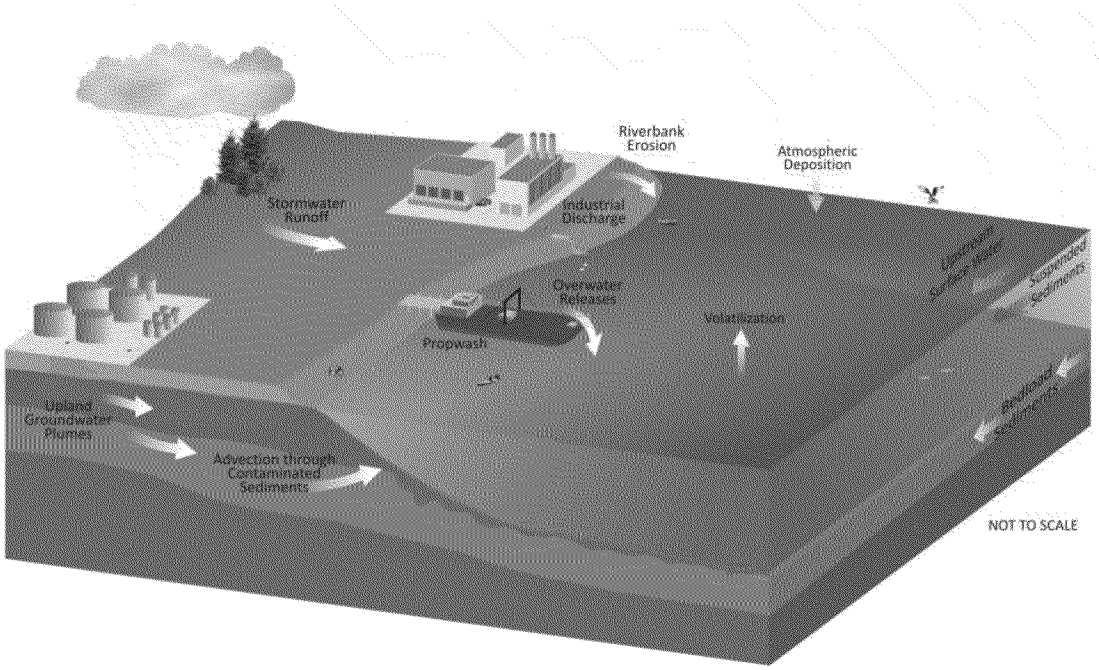
- Marine construction
- Bulk petroleum product storage and handling
- Construction material manufacturing
- Oil fire-fighting training activities
- Oil gasification plant operations
- Pesticide and herbicide manufacturing
- Wood treating operations
- Agricultural chemical production
- Battery processing
- Liquid natural gas plant operations
- Hazardous waste storage
- Chlorine production
- Ship loading and unloading
- Ship maintenance, repair and refueling
- Rail car manufacturing
- Metal scrapping and recycling



In addition to the major industrial activities along the river and in Portland Harbor, other equally important uses benefit the region. Recreational users boat and swim in the area. Recreational and subsistence fishing takes place in the harbor and up and downstream. Tribal fishing for both subsistence and ceremonial purposes continues to be a key activity. Recent studies identified many species of fish and wildlife species using Portland Harbor and the Willamette River as a migratory pathway, including threatened and endangered runs of salmon. Fish-eating birds, migratory waterfowl and raptors seasonally visit the lower Willamette River and Spring Chinook support sport and recreational fishing.

Aerial view of Portland Harbor in 1921

The Willamette River was used historically for transportation, water supply and waste disposal. Disposal of raw sewage and waste degraded water quality. By the 1920s, water pollution made the water unsafe for human use and toxic for wildlife. In the 1950s, the City of Portland put a sewage management plan in place to minimize the discharge of raw sewage into the river. Other cleanup activities in Portland Harbor and surrounding portions of the Willamette River have been ongoing since the early 1970s. There were controls placed on industrial discharges and municipal waste disposal facilities built throughout the Willamette Basin. Today, while historical operations and stormwater drains along the river continue to release pollutants, there are no known direct discharges from current land uses.



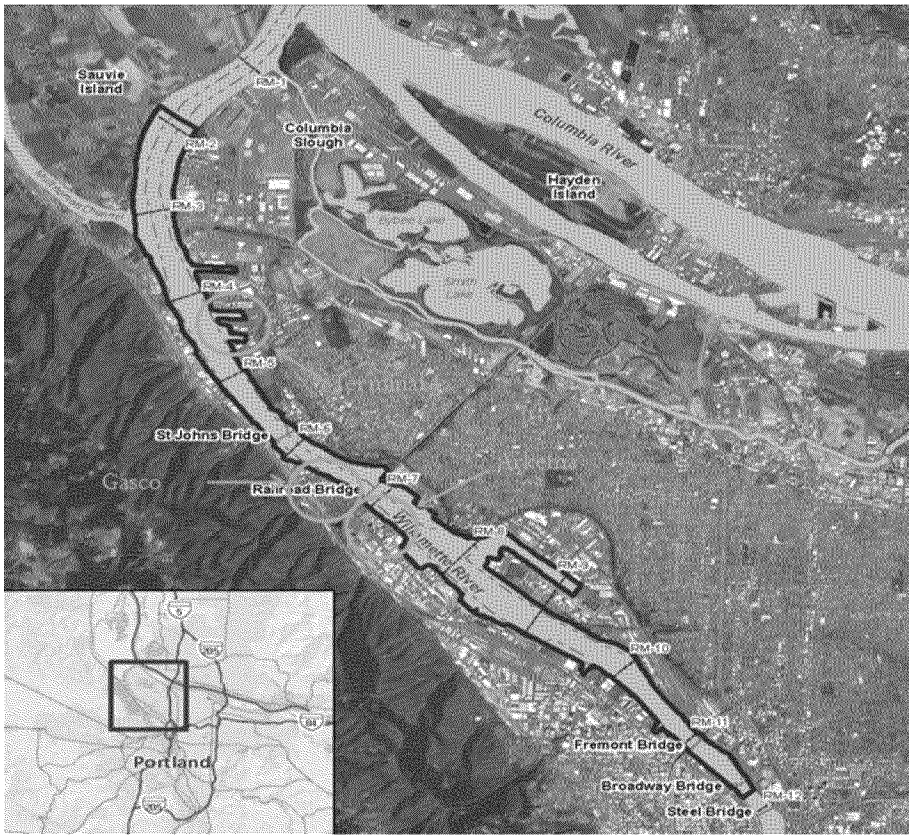
Appendix D: Cleanup Work to Date

Cleanup of several areas is already underway. Some of these cleanup activities are complete.

Early Action Cleanup Areas

Early action cleanup areas are parts of the Portland Harbor Superfund site that may become a threat to people or the environment before long-term cleanup is completed.

- **Arkema –** Former pesticide manufacturing facility contaminated with high levels of DDT and other chemicals. An early action is underway to address this "hot spot" in Portland Harbor.
- **Gasco-Siltronic –** Former manufactured gas plant contaminated with tar deposits from past manufacturing. Removal of tar deposits in the river (brown material in the picture to the right) finished in fall 2005.
- **Terminal 4 –** Former industrial site contaminated with pesticides, PCBs, metals and PAHs. These contaminants are the focus of the early action cleanup.
- **Triangle Park –** A 35-acre former industrial site with soil and groundwater contamination. The University of Portland signed an agreement with the EPA in 2008 to clean up the area as part of its plans for new athletic facilities and trails.
- **U.S. Moorings –** A former industrial site contaminated with metals, solvents, and petroleum byproducts from boat maintenance activities. The feasibility study for the site's cleanup was complete in 2012.



Early action cleanup area location map

LWG Feasiblity Study 2012

Other Sites

Beginning in the late 1980s, ODEQ's cleanup program began working with parties associated with known releases to Portland Harbor, providing oversight of investigation and cleanup activities. At the BP (ARCO) site, for example, the agency worked with responsible parties to clean up petroleum contamination from a storage and transport facility. The primary threat from the site was contamination of the Willamette River via ground water migration. Cleanup started in May 2007 and finished in November 2008.

The EPA listed two other sites – the McCormick and Baxter and Gould sites –on the Superfund program's National Priorities List. The EPA and ODEQ worked cooperatively on site investigations and cleanup.

- **McCormick and Baxter Superfund site** – Former wood treating facility located on the northeast shore of the Willamette River in north Portland. Over the last 15 years, the EPA and ODEQ and agency partners have cleaned up the site and are supporting its return to productive use.
- **Gould Superfund site** – Former lead-acid battery recycling, lead smelting and refining and lead oxide production facility near the Willamette River. Cleanup of contaminated sediment and waste material finished in 2002.

In cases where responsible parties were no longer viable, DEQ has used an Orphan Site Account to fund the necessary response measures as authorized under the Oregon Environmental Cleanup Law. In total, over 40 facilities in Portland Harbor have initiated cooperative relationships with ODEQ under the Voluntary Cleanup Program. ODEQ's website (www.deq.state.or.us/lq/cu/nwr/portlandharbor) provides more information about these sites.

Portland Harbor: Fish Consumption Advisory

Although we work and recreate along Portland Harbor, the primary way people are exposed to contamination from the site is by eating fish such as bass, catfish and carp. These fish, called resident fish, carry levels of chemical contaminants which may cause cancer or developmental problems. PCBs are the primary contaminant associated with most of the risk from eating resident fish. Young children, nursing infants and babies in the womb are the most sensitive to the chemicals: mothers and children should avoid eating Portland Harbor resident fish. For fish advisory information visit: www.healthoregon.org/fishadv or call (877) 290-6767.

Appendix E: Community Involvement Summary

Page X discusses the efforts of EPA Region 10 and ODEQ in 2012 to participate in and host a series of activities to make sure the agencies remain up to date on community concerns and priorities regarding the Portland Harbor site. In turn, this feedback has guided the development of site's updated 2013 Community Involvement Plan.

To develop the site's 2002 Community Involvement Plan, the agencies conducted community interviews and attended dozens of presentations, conferences and meetings. Community feedback from those efforts informed site decision-making, including site investigations and the site's remedial investigation and feasibility study.

Looking forward, community feedback will continue to inform the Proposed Plan for the site's cleanup, scheduled for public review in 2014, and future milestones, including the EPA's Record of Decision selecting the site's remedy. Below, this appendix summarizes public concerns and priorities identified during EPA Region 10 and ODEQ's public outreach efforts for the Portland Harbor site.

What We Have Heard from the Public

Understanding of Portland Harbor – Most interviewees were aware of pollution and contamination problems in the Willamette River. However, there are varying levels of understanding about site issues and efforts to address them. Most information that people have received about Portland Harbor comes through the media, from neighbors or from other river users. Some people have seen deformed fish or a reduction in the fish population over time. Generally, the public wants to see a cleaned up river, but is not as familiar with the stages and technical complexity of the cleanup process.

Environmental Health Risks – People use the Willamette River and other nearby water bodies for fishing, swimming and boating. People regularly ask agency staff whether it is safe for these activities to continue. The site's 2013 human health risk assessment included several key findings addressing this concern:

- Risks resulting from the consumption of fish or shellfish are generally orders of magnitude higher than risk resulting from direct contact with sediment, surface water, or seeps.
- Consumption of resident fish species consistently results in the greatest risk estimates.
- Noncancer hazard estimates for consumption of resident fish species are greater than 1 at all river miles.
- PCBs are the primary contributor to risk from fish consumption harbor wide. When evaluated on a river mile scale, dioxins/furans are a secondary contributor to the overall risk and hazard estimates.

People can safely swim and boat in the Willamette River. The site's fish consumption advisory (see page X) provides guidelines on safely preparing and eating resident fish from Portland Harbor.

Economic Development – The economy of the region is a vital concern for the City of Portland and businesses along Portland Harbor. Small business owners stressed the need to ensure the local economy remains strong and that the site's cleanup does not affect their ability to operate. Some business owners stated there should be a balance between the needs of the industries along the river and the needs of the greater community to have a clean river.

Other Environmental Issues – The public is aware of other environmental issues in the Portland area and asked questions about the coordination of overall water quality. People also raised concerns about suspended contaminated sediments moving downstream following removal actions. Potential recontamination from upland properties has been a concern, including the potential impact on fish and wildlife in and downstream of Portland

Harbor. People are also aware of proposed plans to dredge portions of Portland Harbor and asked about potential impacts on the contaminated sediments if those plans moved forward.

Cleanup Roles and Responsibilities – Most of the people we have spoken to agree with the idea of holding businesses responsible for the contamination they caused. Some government agencies are concerned about paying for cleanup in Portland Harbor and having to pass those costs onto ratepayers. This led some to encourage a collaborative approach with businesses along Portland Harbor to ensure cooperation and the completion of any necessary cleanup. However, others were concerned about the enforcement needed to ensure responsible parties were accountable and funded cleanup activities.

Enforcement – People in favor of a federally led cleanup in Portland Harbor felt that there would be less business influence over the process, more funding and resources available, greater protection of natural resources, and a greater regulatory authority. Others felt that a state-led cleanup would ensure more local control over the process and greater cleanup efficiency, while offering the same level of regulatory authority and cleanup standards. In general, interviewees were in favor of a state-led approach as long as ODEQ could accomplish the cleanup in a manner that protects human health and the environment.

Appendix F: Acronyms

AET	Apparent Effects Thresholds
AML	Arc Macro Language
ANOVA	Analysis of Variance
ARAR	Applicable or Relevant and Appropriate Requirement
ARL	Acceptable Risk Level
AST	Aboveground Storage Tank
B-COC	Bioaccumulative Chemical of Concern
BMP	Best Management Practice
BRI	Benthic Response Index
BSAF	Biota-Sediment Accumulation Function
BT	Bioaccumulation Trigger
CAS	Chemical Abstract Service
CBR	Critical Body Residue
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CFR	Code of Federal Regulations
COC	Contaminant of Concern
COE	Corps of Engineers
COI	Contaminant of Interest
COPC	Contaminant of Potential Concern
CPEC	Contaminant of Potential Ecological Concern
CPF	Cancer Potency Factor
CSF	Cancer Slope Factor
CSO	Combined Sewer Outflow
CWA	Clean Water Act
DDD	Metabolite of DDT
DDE	Metabolite of DDT
DDT	Dichlorodiphenyltrichloroethane
DMEF	Dredged Material Evaluation Framework
DNA	Deoxyribonucleic Acid
DNAPL	Dense Non-Aqueous Phase Liquid
DO	Dissolved Oxygen
DQO	Data Quality Objective
DSL	Oregon Division of State Lands
DWR	Department of Water Resources
ECSI	Environmental Cleanup Site Information Database
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
ERED	Environmental Residue-Effects Database
ESA	Endangered Species Act
ESU	Evolutionary Significant Unit
FDA	U.S. Food and Drug Administration
GIS	Geographic Information System
HEAST	Health Effects Assessment Summary Table
HI	Hazard Index
HPAH	High Molecular Weight Polycyclic Aromatic Hydrocarbon
HW	Hazardous Waste
IMMP	Inspection, Maintenance and Monitoring Plan
ITI	Infaunal Trophic Index
IRIS	Integrated Risk Information System
IT IS	Integrated Taxonomic Information System
ITM	Inland Testing Manual
LDR	Land Disposal Restriction
LNAPL	Light Non-Aqueous Phase Liquid
LOAEL	Lowest Observed Adverse Effect Level
LPAH	Low Molecular Weight Polycyclic Aromatic Hydrocarbon
LSD	Least Significant Difference
LUST	Leaking Underground Storage Tank
MCLG	Maximum Contaminant Level Goal
MCL	Maximum Contaminant Level
NAPL	Non-Aqueous Phase Liquid
NCP	National Contingency Plan
NFA	No Further Action
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NOAEL	No Observed Adverse Effect Level
NODC	National Oceanographic Data Center
NPDES	Natural Pollution Discharge Elimination System
NPL	National Priorities List
NRDA	Natural Resource Damage Assessment
NWEA	Northwest Environmental Advocates
OAR	Oregon Administrative Rules
OCF	On-Site Containment Facility
ODEQ	Oregon Department of Environmental Quality
ODFW	Oregon Department of Fish and Wildlife

ODOT	Oregon Department of Transportation
ODWR	Oregon Department of Water Resources
ORS	Oregon Revised Statutes
OSA	Orphan Site Account
PA	Preliminary Assessment
PAH	Polycyclic Aromatic Hydrocarbon
PCB	Polychlorinated Biphenyl
PCDD	Polychlorinated Dibenzodioxin
PCDF	Polychlorinated Dibenzofuran
PCP	Pentachlorophenol
PDC	Portland Development Commission
PHSMP	Portland Harbor Sediment Management Plan
PPA	Prospective Purchaser Agreement
PRP	Potentially Responsible Party
PSEP	Puget Sound Estuarine Protocols
PSY	Portland Ship Repair Yard
QA/QC	Quality Assurance/Quality Control
OSA	Orphan Site Account
RAGS	Risk Assessment Guidance for Superfund
RAO	Remedial Action Objective
RCRA	Resource Conservation and Recovery Act
RD/RA	Remedial Design/Remedial Action
RDT	Regional Decision Team
RfD	Reference Dose
RI/FS	Remedial Investigation/Feasibility Study
RM	River Mile
RME	Reasonable Maximum Exposure
ROD	Record of Decision
RP	Responsible Party
SAM	Sediment Assessment Methodology
SAP	Sampling and Analysis Plans
SIMI	Similarity Index
SMP	Sediment Management Plan
SPI	Sediment Profile Imaging
SQG	Sediment Quality Guideline
TAG	Technical Assistance Grant
TBT	Tributyltin
TCA	Trichloroethane
TEC	Trichloroethylene
TCLP	Toxicity Characteristic Leaching Procedure
TEF	Technical Evaluation Framework
TIE	Toxicity Identification Evaluation
TMDL	Total Maximum Daily Load
TOC	Total Organic Compounds
TPH	Total Petroleum Hydrocarbons
TPL	The Trust for Public Lands
TRV	Toxicity Reference Value
TSC	Tissue Screening Concentrations
TSS	Total Suspended Solids
TTL	Target Tissue Level
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	Underground Storage Tank
VCP	Voluntary Cleanup Program
VOC	Volatile Organic Compound
WRDA	Water Resources Development Act

Appendix G: Glossary of Terms

Applicable or Relevant and Appropriate Requirements (ARARs): The federal Superfund law (CERCLA) specifies that remedial actions must comply with requirements or standards under federal or more stringent state environmental laws that are applicable or relevant and appropriate to the hazardous substances or particular circumstances of a site. Applicable requirements are those protection requirements that specifically address a hazardous substance at a CERCLA site. Relevant and appropriate requirements are those protection requirements that, while not applicable to a hazardous substance, address problems sufficiently similar to those encountered at a CERCLA site to make them useful. (52 FR 32496, August 27, 1987)

Assessment Endpoint: An explicit expression of a specific ecological receptor and an associated function or quality to be maintained or protected. Assessment endpoints represent ecological receptors directly or as their surrogates for the purposes of an ecological risk assessment. (OAR 340-122-115(7))

Background Level: Concentration of hazardous substances, if any, existing in the environment near a facility before any past or present releases. (OAR 340-122-115(8))

Benthic Infaunal Communities: A group of plants, animals and other organisms that live in or on the sediment and interact with one another, forming a distinct living system with its own composition, structure, environmental relationships, development and function.

Best Management Practices (BMPs): Methods determined to be the most effective, practical means of preventing or reducing pollution from nonpoint sources.

Bioaccumulation: The ratio of the concentration of a chemical in an organism to the concentration of the chemical in an ambient medium (usually water).

Bioconcentration: The ratio of the concentration of a chemical in an organism to the concentration of the chemical in the organism's food or water.

Biota-Sediment Accumulation Function (BSAF): The relationship between tissue concentrations and sediment concentrations derived using tissue and sediment chemistry data.

Bioassays: Biological tests used to determine the toxicity and/or bioaccumulation potential of a hazardous substance.

Brownfields: Abandoned, idled or underused industrial and commercial facilities where expansion or redevelopment is complicated by real or perceived environmental contamination.

Carcinogens: Any substance or agent that produces or tends to produce cancer in humans. (OAR 340-122-115(10))

Chemical of Interest: A hazardous substance identified as having the potential to pose a risk to human health or the environment.

Cleanup: Actions taken to deal with a release or threatened release of hazardous substances that could affect public health or the environment. Agencies often use the term broadly to describe various response actions or phases of remedial activities, such as a remedial investigation/feasibility study. "Cleanup" is sometimes used interchangeably with the terms "remedial action," "remediation," "removal action," "response action" or "corrective action."

Cleanup Level: Residual concentration of a hazardous substance determined to be protective of public health, safety and welfare, and the environment under specified exposure conditions. (OAR 340-122-115(11))

Community Advisory Group (CAG): A committee, task force or board made up of stakeholders affected by a Superfund or other hazardous waste

site. A CAG provides a way for representatives of diverse community interests to present and discuss their needs and concerns related to the site and the site cleanup process. CAGs are a community initiative and responsibility. They function independently of the EPA.

Community Involvement Plan (CIP): A formal plan of communication and public participation activities developed by the EPA to ensure opportunities for community members to learn more about Superfund site activities and provide input to inform site decision-making. The plan is the result of information collected through community meetings and interviews and a review of site-related documents.

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA): The federal act (Public Law 96-510; December 11, 1980) that provides for liability, compensation, cleanup and emergency response for hazardous substances released into the environment and the cleanup of inactive waste disposal sites.

Conceptual Model: A written description and illustration of predicted relationships between receptors (both human and ecological) and the hazardous substances they may be exposed to.

Consent Order: Legal vehicle to make sure cleanup moves forward at a contaminated site. It typically contains stipulated penalties for non-performance by the liable entity and cannot be terminated unilaterally.

Contaminant of Concern: A hazardous substance present in such concentrations that it poses a threat or a potentially unacceptable risk to public health or the environment. (OAR 340-122-115(15))

Data Quality Objectives (DQOs): Qualitative and quantitative statements of the overall level of uncertainty that a decision-maker will accept in results or decisions based on environmental data. These provide the statistical framework for planning and managing environmental data operations consistent with user's needs.

Ecological Risk Assessment: The process for evaluating how likely it is that the environment may be impacted because of exposure to one or more environmental stressors such as contaminants and hazardous wastes.

Endangered Species Act (ESA): Federal statute enacted in 1973 to conserve species and ecosystems. Species facing possible extinction are listed as "threatened" or "endangered" or as "candidate" species for such listings. Following such a listing, recovery and conservation plans are put in place to protect the species and its habitat.

Environment: The sum of all external conditions affecting the life, development and survival of an organism.

Environmental Cleanup Law: Oregon's revised cleanup law, enacted in 1995, which expanded ODEQ's authority related to the identification, investigation and cleanup of hazardous substances.

Environmental Protection Agency (EPA): Federal agency whose mission is to protect human health and safeguard the environment.

Facility: Any site or area where a hazardous substance is located and where a release has occurred or the potential for a release exists. (OAR 340-122-115(26))

Feasibility Study: An assessment of cleanup alternatives. A feasibility study, or FS, takes place if the risk assessment performed during a remedial investigation establishes the presence of unacceptable risks. During an FS, EPA screens and evaluates alternatives to clean up a site based on nine evaluative criteria, including effectiveness, cost and community acceptance.

Harbor-Wide Assessment: Investigations conducted in the lower Willamette River (River Miles 0.0 to 26.5), inclusive of Portland Harbor (River Miles 3.5 to 9.5), and possibly extending into the Columbia River near its confluence with the Willamette River.

Hazard Index: If a person is exposed to more than one chemical, a screening-level estimate of the total

non-cancer risk is derived simply by summing the HQ values for that individual. This total is referred to as the Hazard Index, or HI.

Hazard Ranking System: The principal mechanism the EPA uses to place uncontrolled waste sites on the National Priorities List. The numerically based screening system uses information from initial, limited investigations to assess the relative potential of sites to pose a threat to human health or the environment.

Hazardous Waste: Solid wastes that possess at least one of four characteristics (ignitability, corrosivity, reactivity or toxicity), appear on special EPA lists, or are defined as hazardous by Oregon rules and statutes.

Hot Spots: For ground water or surface water, hazardous substances having a significant adverse effect on beneficial uses of water or waters to which the hazardous substance would be reasonably likely to migrate and for which treatment is reasonably likely to restore or protect such beneficial uses within a reasonable time. For media other than water (including sediments), defined by the presence of high concentrations of hazardous substances that are likely to migrate and create a hot spot of contamination elsewhere, or by the presence of hazardous substances that are not reliably confinable. (OAR 340-122-115(31))

Human Health Risk Assessment: The process to estimate the nature and probability of adverse health effects in humans who may be exposed to chemicals in contaminated environmental media, now or in the future.

Institutional Control: Legal or administrative tool or action taken to reduce the potential for exposure to hazardous substances, which may include, but are not limited to, use restrictions, environmental monitoring requirements, and site access and security measures. (OAR 340-122-115(32))

Joint and Several Liability: Under CERCLA, this legal concept relates to the liability for Superfund site cleanup and other costs on the part of more than one potentially responsible party (i.e., if there were several owners or users of a site that became contaminated over the years, they could all be considered potentially liable for cleaning up the site).

National Contingency Plan (NCP): The National Oil and Hazardous Substances Pollution Contingency Plan, more commonly known as the National Contingency Plan, or NCP, is the federal government's blueprint for responding to both oil spills and hazardous substance releases.

National Priorities List (NPL): The EPA's list of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term cleanup under Superfund. The list is based primarily on the score a site receives from the Hazard Ranking System. The EPA is required to update the NPL at least once a year.

No Further Action (NFA): A determination by ODEQ following a preliminary assessment, risk assessment or completion of remedial action that no unacceptable risks to human health or to the environment remain.

Noncarcinogen: Hazardous substance with adverse health effects other than cancer on humans. (OAR 340-122-115(36))

ODEQ: State agency whose job is to protect the quality of Oregon's Environment. ODEQ is responsible for protecting and enhancing Oregon's water and air quality, for cleaning up spills and releases of hazardous materials, and for managing the proper disposal of hazardous and solid wastes.

Orphan Site Account (OSA): Account used to fund investigation and remedial actions where liable parties are unknown, unwilling or unable to participate. ODEQ uses litigation to recover OSA funds from recalcitrant responsible parties.

Potentially Responsible Party: An individual, company or other entity (such as owners, operators, transporters or generators of hazardous waste) potentially responsible for, or contributing

to, contamination at a Superfund site. Whenever possible, the EPA requires a PRP, through administrative and legal actions, to clean up hazardous waste sites it has contaminated.

Preliminary Assessment (PA): An assessment of information about a site and its surrounding area. A preliminary assessment determines whether a site poses little or no threat to human health and the environment or if it does pose a threat, whether the threat requires further investigation.

Proposed Plan: A plan for a site's cleanup that is available to the public for review and comment.

Public Availability Session: Informal public sessions that often use poster displays and fact sheets and that include EPA staff and contractors who are available to discuss issues and answer questions. Public availability sessions offer the public the opportunity to learn about project-related issues and to interact with EPA staff on a one-to-one basis.

Public Comment Period: A formal opportunity for community members to review and contribute written comments on various EPA documents or actions.

Public Meeting: Formal public sessions characterized by a presentation to the public followed by a question-and-answer session. Formal public meetings may involve the use of a court reporter and the issuance of transcripts. Formal public meetings are required only for the Proposed Plan and ROD amendments at a site.

Record of Decision (ROD): The public document issued by the EPA that explains the cleanup alternatives selected to clean up a Superfund site.

Release: Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing into the environment, including the abandonment or discarding of barrels, containers and other closed receptacles containing any hazardous substance, or any threat thereof, but excluding exposures within a workplace, emissions from the engine exhaust, nuclear material and the normal application of fertilizer.

Remedial Alternative: An action considered in the feasibility study intended to reduce or eliminate unacceptable risks to human health and the environment at a site. The feasibility study considers a range of remedial alternatives. A site's Record of Decision documents the selection of a specific remedial alternative over other alternatives.

Remedial Action: The selected remedial alternative documented in a site's Record of Decision.

Remedial Investigation (RI): The first of the two-part site study known as a remedial investigation/feasibility study. The remedial investigation involves collecting and analyzing information about a site to determine the nature and extent of contamination that may be present. The risk assessment, conducted with the remedial investigation, determines how conditions at a site may affect human health or the environment.

Remediation: The removal of pollution or contaminants from land, water and air to protect human health and the environment. Also see *cleanup*.

Removal Action: Action necessary to prevent, minimize or mitigate damage to public health, safety and welfare, and the environment (OAR 340-122-070). Generally taken in response to an imminent threat, it may take place at any point in the site response process, and may include source control measures, removal of highly contaminated material, and/or posting warning signs or constructing fences around a contaminated site.

Risk: Probability that a hazardous substance, when released into the environment, will cause adverse effects in exposed humans or ecological receptors.

Risk Assessment: The process of evaluating whether a hazardous substance poses a potential threat to human health and the environment, either now or in the future.

Sediment: Soils, sand, organic matter or minerals that accumulate on the bottom of a water body.

Sediment Quality Guidelines (SQGs): Numeric sediment concentrations above which further biological testing and/or a feasibility study may be warranted. Below these concentrations, suspected sediment contaminants are unlikely to pose an unacceptable risk.

Site Assessment: Process to evaluate potential or confirmed releases of hazardous substances that may pose a threat to human health or the environment. Criteria established under the Hazard Ranking System guide the process, which EPA, state, tribal or other federal agency environmental programs carry out.

Site Discovery: Process of identifying and documenting a release of hazardous substance to the environment.

Site-Specific Assessment: A remedial investigation conducted at a site or facility under the jurisdiction of Oregon's environmental cleanup statutes and rules.

Subsistence Fishing: People who obtain a significant portion of their dietary protein from eating self-caught fish of various species.

Superfund: The program operated under the legislative authority of CERCLA that funds and carries out EPA solid waste emergency and long-term removal and remedial activities. These activities include establishing the National Priorities List, investigating sites for inclusion on the list, determining their priority, and conducting and/or supervising cleanup and other remedial actions. Superfund is the common name for CERCLA. People often use the term as an adjective for hazardous waste sites and the investigation and cleanup process directed by the EPA.

Tissue Screening Concentrations (TSCs): Contaminant concentration in fish tissue below which adverse effects are not expected for 95 percent of the fish species.

Target Tissue Levels (TTLs): A tissue concentration in food items (e.g., fish or shellfish) that does not pose an unacceptable risk to birds, mammals, or humans that consume these food items.

Portland Harbor: The six-mile (River Mile 3.5 to 9.5) industrialized part of the Willamette River between Swan and Sauvie Islands.

Voluntary Cleanup Agreement: Legal agreement to ensure cleanup moves forward at a contaminated site; entered into voluntarily by site owners, enforceable by administrative penalties or court action.

Willamette River: The 187-mile long waterway in northwest Oregon that flows northward between the coast and the Cascade Mountains.

Appendix H: Additional Information Resources

Agency Websites

EPA Region 10: www.epa.gov/region10/portlandharbor
ODEQ: www.deq.state.or.us/lq/cu/nwr/portlandharbor

Portland Harbor Fact Sheets (EPA Web page or on request)

Proposed Confined Disposal Facility Questions and Answers – January 2013
Feasibility Study and Sitewide Status Update – April 2012
Human Health Risk Assessment Overview – February 2009

Reports and Other Materials of Interest (EPA Web page or on request)

Draft Feasibility Study
Draft Human Health Risk Assessment
Draft Ecological Risk Assessment
Early Action Cleanup Area updates

Other Community Resources

Portland Harbor Community Advisory Group: www.portlandharborcag.info
Willamette Riverkeeper (technical assistance grantee):
www.willamette-riverkeeper.org/WRK/index.html
Natural Resource Trustee Council: www.fws.gov/oregonfwo/Contaminants/PortlandHarbor
Lower Willamette Group (LWG): lwgportlandharbor.org

EPA and ODEQ Contacts

General Questions

- Alanna Conley, EPA Community Involvement Coordinator – (503) 326-6831 | conley.alanna@epa.gov
- Marcia Danab, ODEQ Community Involvement Coordinator – (503) 229-6488 | danab.marcia@deq.state.or.us

Technical Questions

- Chip Humphrey, EPA Project Manager – (503) 326-2678 | humphrey.chip@epa.gov
- Jim Anderson, ODEQ Project Manager – (503) 229-6825 | anderson.jim@deq.state.or.us

En Español: Si desea hablar con alguien que habla español, llame a Michael Ortiz (ortiz.michael@epa.gov) | (206) 553-6234.

Request copies of EPA records using *FOIAonline*:
yosemite.epa.gov/r10/extaff.nsf/FOIA+pages/freedom+of+information+act.

Region 10 Regional Public Liaison: A facilitator between citizens and EPA staff who can help solve site-related problems and communication issues. Contact Suzanne Powers (powers.suzanne@epa.gov) at (360) 753-9475.

Environmental justice – The EPA's goal is to provide an environment where all people enjoy the same degree of protection from environmental and health hazards and equal access to the decision-making process to maintain a healthy environment in which to live, learn and work. Contact our environmental justice staff for more information and resources: yosemite.epa.gov/r10/ocrej.nsf/Environmental+Justice/EJ-Contacts.